

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(oracle01.013)

5 **Applicant:** Alpern, et al. **Confirmation No.:** 7766

Application No: 09/881,501 **Group Art Unit:** 2171

Filed: 6/14/01 **Examiner:** E.P. Leroux

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Title: *Redirection of misses in queryable caches*

15 Commissioner for Patents
 Alexandria, VA 22313-1450

Response to Notification of Non-Compliant Appeal Brief

20 Applicant received a *Notification of Non-Compliant Appeal Brief* in the above
 application mailed 10/31/06. Examiner stated that the brief did not contain all of the
 items required under 37 CFR 41.37(c). Applicant noted that the Appeal Brief as filed
 is lacking appendixes 9 and 10 and filed a response which amended the Appeal Brief
 to include those appendixes on 11/29/06. On 12/15/2006, Examiner mailed a second
25 *Notification of Non-Compliant Appeal Brief* in which Examiner objected to the brief
 on the following grounds:

30 4. The brief does not contain a concise explanation of the subject
 matter defined in each of the independent claims involved in the
 appeal, referring to the specification by page and line number and
 to the drawings, if any, by reference characters; and/or (b) the brief
 fails to: (1) identify, for each independent claim involved in the
 appeal and for each dependent claim argued separately, every
35 means plus function and step plus function under 35 U.S.C. 112,
 sixth paragraph, and/or (2) set forth the structure, material, or acts
 described in the specification as corresponding to each claimed
 function with reference to the specification by page and line
 number, and to the drawings, if any, by reference characters (37
 CFR 41.37(c)(1)(v)).

40 and

 10. Applicant is required to map each and every limitation of the
 independent claims and each and every limitation of each and
 every dependent claim argued separately to figures in the drawings
 and/or column and line number of the specification

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As permitted by MPEP 1205.03(A), Applicants are complying with the above requirement by providing a rewritten section *(5) Summary of claimed subject matter* that contains the additional information.

(5) Summary of claimed subject matter

The claimed subject matter concerns redirection of query execution in a distributed database system made up of two or more database systems. A distributed database system that embodies the invention is shown at 201 in FIG. 2 and described beginning at page 12, line 10 of Applicants' Specification. Database system 201 includes a redirecting database system 203 and a redirection target database system 229. As is clear from page 13, lines 26-27, the term "database system" in the context of the patent application means a system that includes a query engine 205 and a database 220 and is thus able to independently execute a query.

Subject matter of the independent claims

There are two independent claims: claim 15, which claims the invention in apparatus form, and claim 5, which claims it in method form. Claim 15 reads as follows. Reference numbers are added for the convenience of the Appeals Board and are not intended to limit the scope of the claim:

15. (currently amended) Apparatus that redirects at least a part of a request (204) received in a particular database system (203) belonging to a distributed database system (201) to another database system (229) in the distributed database system,
the apparatus comprising:
a request analyzer (205, component 305) in the particular database system that determines that the request is preferably executed at least in part in the other database system; and
a redirector (207) in the particular database system that redirects execution of at least the part of the request to the other database system.

Operation of the apparatus of claim 27 is described in overview at page 14, line 18 through page 15, line 10. Details of a preferred embodiment are disclosed beginning at page 14, line 11 and shown in FIG. 3.

Claim 5 reads as follows:

5. (currently amended) A method employed in a distributed database system that includes a plurality of database systems for responding to a request received in a particular database system of the plurality,
the method comprising the steps performed during execution of the request in the particular database system of:
determining whether the execution of the request is preferably done at least in part in another database system of the plurality; and
if that is the case, redirecting that part of the execution to the other

9 database system.

The claimed method is disclosed at page 12, line 23-page 13, line 14; lines 8-14 set forth a variety of situations in which redirection may occur. Detailed flowcharts for the method in a preferred embodiment are shown in FIGs. 4 and 5 and discussed beginning at page 18, line 16.

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Subject matter of separately-argued dependent claims 6,19; 7,16; 8,17; 9,18

These claims are presented as pairs of claims: the first member of the pair presents an additional limitation as an additional limitation to independent method claim 5; the second member presents the corresponding additional limitation as an additional
10 limitation to independent apparatus claim 15. The discussions of the rejections of these claims are similarly arranged.

Claims 6 and 19

These claims add the limitation that the step of determining “determines that an object
15 required for execution of the request is lacking in the particular database system”. This case in which redirection occurs is disclosed at col. 13, lines 9 and 10

Claims 7 and 16

The added limitations here are that the particular database system “places the request
20 in a form required for execution in the particular database system” and then modifies the form when it has been determined that redirection is required. The Specification discloses two embodiments of the claimed modification of the “form required for execution in the particular database system”: one for cursors and one for PL/SQL calls to stored procedures. The embodiment for cursors is shown at 433 in FIG. 4 and
25 explained beginning at page 18, line 15. The embodiment for PL/SQL calls to stored procedures is shown at 531-535 in FIG. 5 and explained beginning at page 19, line 29.

Claims 8 and 17

Additionally, with regard to claims 8 and 17, the added limitations are that “the
30 request includes an SQL statement” and that “the form required for execution is a cursor” and that “the cursor is marked for redirection”. These claims thus address the cursor species of the genus of claims 7 and 16 and their additional limitations are

disclosed as indicated above at 433 in FIG. 4 and explained beginning at page 18, line 15.

Claims 9 and 18

- 5 The added limitations here are that the request “includes a call to a procedure object” and “the call is rewritten in the form required for execution as a remote procedure call directed to the other database system.” These claims thus address the PL/SQL stored procedure call species of the genus of claims 7 and 16 and their additional limitations are disclosed as indicated above at 531-535 in FIG. 5 and explained beginning at page 10 19, line 29.

Conclusion

Applicants have responded to the *Notification of Non-compliant Appeal Brief* by providing a new section (5) *Summary of claimed subject matter* which includes summaries for separately-argued dependent claims 6,19; 7,16; 8,17; 9,18 and have
5 thereby rendered their brief compliant with 37 C.F.R. 41.37. Applicants consequently request that Examiner and the Board proceed with the appeal. No fees are believed to be required. Should any be, please charge them to deposit account #501315.

Respectfully submitted,

/Gordon E. Nelson/

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